

012.P7007

Patent

REMARKS

Claims 1, 2, 9 and 16 are amended. No claims are added or cancelled. Claims 1 - 20 are pending.

The Examiner rejected claims 1 - 20 as being anticipated by U.S. Patent No. 5,822,311 to Hassan (the "'311 patent") under 35 U.S.C. § 102 (b). This rejection is respectfully traversed.

The specification of the present application relates to, among other things, a technique for contention based access signalling in a broadband wireless communication system. Figure 7 illustrates signalling in an uplink signalling channel over an uplink sub-frame 400 to an associated base station 106. Portions 402 and 404 are reserved for the transmission of contention messages from multiple subscriber units (registration during portion 402 and bandwidth requests during portion 404) while portions 406 are each reserved for uplink transmission from an associated single subscriber unit. [specification, p. 16, ll. 9 - 26] Accordingly, each portion 402, 404 and 406 may be characterized as a "time window" reserved in the uplink signalling channel. Portion 402 is temporally preceded or followed by a window reserved for data transmission by one of the subscriber units (portion 406) or a window reserved for transmission by two or more of the subscriber units (portion 404). For the purpose of establishing access to a service, for example, on each cycle of the uplink sub-frame 400, portion 402 may provide a "new access opportunity" for a subscriber unit to establish access. If a subscriber unit is unsuccessful in attempting to establish access in a portion 402 of a current uplink sub-frame 400 (e.g., because a collision with an access request from the subscriber unit with an access request from another subscriber unit), the

012.17007

Patent

subscriber unit may attempt to establish access in a portion 402 of a subsequent uplink sub-frame 400 ("new access opportunity").

The applicant has amended the claims to further clarify the meaning of the phrase "new access opportunity" (even though its plain meaning should already be clear in the context of the specification). In particular, the applicant further clarified that a new access opportunity time window is to be "temporally preceeded or followed by at least one of a time window reserved for transmission of data from one of the subscriber units and a time window reserved for the transmission of data to the base station from two or more of the subscriber units." Since such clarification appears to be required for proper construction of the phrase at issue, such importation of these limitations should not narrow the affected claim.

The '311 patent appears to show a technique for establishing access to a GSM system using messages transmitted in a random access control channel (RACH). Figures 4 and 5 appear to illustrate processes for transmitting a burst request in the RACH. Figure 2 appears to show how the RACH comprises an uplink portion of common control channel (CCCH) but does not appear to show that the RACH is temporally interleaved with any other channel.

The independent claims 1, 2, 9 and 16 of the present application distinguish over the '311 patent by reciting, *inter alia*:

a contiguous new access opportunity time window in an uplink signalling channel, the new access opportunity time window *being temporally preceeded or followed by* at least one of a time window reserved for transmission of data from one of the subscriber units and a time window reserved for the transmission of data to the base station from two or more of the subscriber units. [emphasis added]

012.17007

Patent

The '311 patent, merely illustrating a technique for transmitting acquisition bursts in a RACH channel in an uplink signal, does not disclose, suggest or make obvious a "new access opportunity window being temporally preceeded or followed by ... a time window reserved for transmission of data from one of the subscriber units" or "a time window reserved for the transmission of data to the base station from two or more of the subscriber units ." Accordingly, the applicants respectfully submit that the independent claims 1, 2, 9, and 16 (and the remaining claims depending therefrom) distinguish over the '311 patent.

The '311 patent also appears to illustrate with respect to Figures 4 and 5 processes performed by a subscriber unit for establishing access to a service according to a unidirectional flow of steps including acquire synchronization, transmit random access information and calculate time adjustment. In the Final Office Action, the Examiner has asserted that the "subscribers monitor the status of the slots of the transmission frames when desiring to send access data (waiting for a contiguous new access opportunity time window)." [Final Office Action, p. 3, ll. 3 - 5] However, the applicants are puzzled as to how the '311 patent shows this in connection with the access processes illustrated with reference to Figures 4 and 5. As discussed above, it would appear from Figure 2 of the '311 patent that RACH occupies the entire uplink signalling channel with no other data being transmitted between adjacent RACH frames. Accordingly, the processes illustrated with reference to Figures 4 and 5 would appear to have no need to "wait" for a new opportunity to attempt establishing access.

012.P7007

'Patent'

In view of the further clarification of the phrase "new access opportunity," the applicants point out that claim 1 further distinguishes over the '311 patent by reciting, *inter alia*:

- (a) waiting for a contiguous new access opportunity time window . . .
- (c) returning to step (a) *if the new access opportunity has expired*, else returning to step (b). [emphasis added]

The process illustrated with reference to Figures 4 and 5 of the '311 patent, merely showing acquisition synchronization, receiving a page and calculation of a time adjustment, does not disclose, suggest or make obvious "*waiting* for a contiguous new access opportunity time window" and returning to "wait" if "the new access opportunity has expired." As set forth herein, the '311 patent does not appear to explicitly describe these limitations in claim 1. To the extent that the Examiner still believes that the '311 patent shows these limitations, the applicants request that the Examiner provide additional materials that would lead one of ordinary skill in the art to necessarily conclude that the '311 patent discloses these limitations.

Claim 2 similarly recites:

- (a) waiting for a contiguous new access opportunity time window . . .
- and returning to step (a) if the new access opportunity time window has expired

...

Accordingly, for similar reasoning as that set forth for claim 1, the applicant respectfully submits that claim 2, and claims 3 - 8 depending therefrom, similarly further distinguish over the '311 patent.

012.P7007


'Patent'

In view of the foregoing amendments and remarks, the applicants respectfully submit that this application is in condition for allowance. However, if the Examiner finds an reason why this application is not in condition for allowance, the applicants request to contact the undersigned attorney by telephone at (310) 541-7832 to discuss the application.

Respectfully submitted,

Berkeley Law and Technology Group, LLC

Dated: October 6, 2004



Paul Nagy
Reg. No. 37,896

5250 NE Elam Young Parkway
Suite 850
Hillsboro, OR 97124
(503) 640.6475